IN THE CLAIMS:

1. (Currently Amended) Communication system comprising:

a plurality of terminals which are connected to an access network, the access network having

an access node connected to a transmission network and a non-dedicated network switch using a signaling protocol, ~~wherein~~ the access node includes

-an access node switch coupled to the network switch, and

a plurality of network control elements,

wherein the access node switch controls all of the network specific switching without having to know a carrier frequency allocated to a terminal coupled to a sub-network,

the network control elements include

a network control switch, and

a plurality of channel cluster modules, wherein the channel cluster modules are arranged for transmitting downstream signals on one carrier frequency and are coupled to the a sub-network corresponding to ~~the~~ a network control node, and

wherein the transmission network comprises a plurality of sub-networks coupled to the network control elements.

2. (Cancelled).

3. (Previously Amended) Communication system according to claim 1, wherein the channel cluster modules comprise at least one downstream channel module.

4. (Previously Amended) Communication system according to claim 3, wherein the channel cluster module comprises an upstream channel module.

5. (Previously Amended) Communication system according to claim 1, wherein the terminals comprises signaling means for exchanging network layer control information with the network switch.

6. (Previously Amended) Communication system according to claim 1, wherein the network switch comprises proxy signaling means for deriving network layer control information from session layer and/or transport layer information exchanged between a terminal and the network switch.

D1

7. (Currently Amended) An a~~A~~ccess node connectable to a transmission network, and to a non-dedicated network switch, the access node comprising:

an access node switch coupled to a plurality of network control elements, wherein the access node switch is connectable to the network switch, and the access node switch controls all of the network specific switching without having to know a carrier frequency allocated to a terminal coupled to a sub-network, wherein the network control elements comprise a network control switch and a plurality of channel cluster modules, in that ~~the~~ a network control node router is coupled to ~~the~~ an access node router and to the channel cluster modules, and in that the channel cluster modules are arranged for transmitting downstream signals on one carrier frequency and are connectable to a sub-network corresponding to the network control node, and wherein the network control elements are connectable to a plurality of sub-networks.

8. (Cancelled).